CLAIMS

1. A quinazoline derivative of the formula I:

$$R^{1}$$
 R^{2}
 N
 N
 R^{4}
 N

(I)

[wherein:

m is an integer from 1 to 2;

R¹ represents hydrogen, hydroxy, halogeno, nitro, trifluoromethyl, cyano, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, or -NR⁵R⁶ (wherein R⁵ and R⁶, which may be the same or different, each represents hydrogen or C₁₋₃alkyl);

R² represents hydrogen, hydroxy, halogeno, methoxy, amino or nitro;

R³ represents hydroxy, halogeno, C_{1.3}alkyl, C_{1.3}alkoxy, C_{1.3}alkanoyloxy, trifluoromethyl, cyano, amino or nitro;

 X^{1} represents -O-, -CH₂-, -S-, -SO-, -SO₂-, -NR⁷CO-, -CONR⁸-, -SO₂NR⁹-, -NR¹⁰SO₂- or -NR¹¹- (wherein R⁷, R⁸, R⁹, R¹⁰ and R¹¹ each independently represents hydrogen, C₁. 3alkyl or C₁₋₃alkoxyC₂₋₃alkyl);

R⁴ is selected from one of the following thirteen groups:

1) C_{1.3}alkylR¹² (wherein R¹² is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to C_{1.5}alkyl through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.4}alkyl, C_{1.4}hydroxyalkyl, C_{1.4}alkoxy, carbamoyl, C_{1.4}alkylcarbamoyl, N,N-di(C_{1.4}alkyl)carbamoyl, C_{1.4}alkanoyl and C_{1.4}alkoxycarbonyl) or C_{1.5}alkylR¹³ (wherein R¹³ is a group selected from pyrrolidin-1-yl, imidazolidin-1-yl and thiomorpholino, which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.5}

- 4alkyl, C_{1-1} hydroxyalkyl, C_{1-1} alkoxy, carbamoyl, C_{1-1} alkylcarbamoyl, N,N-di(C_{1-1} alkyl)carbamoyl, C_{1-1} alkanoyl and C_{1-1} alkoxycarbonyl);
- 2) C₂₋₅alkenyiR¹⁴ (wherein R¹⁴ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁.

 4alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, carbamoyl, C₁₋₄alkylcarbamoyl, N,N-di(C₁.

 4alkyl)carbamoyl, C₁₋₄alkanoyl and C₁₋₄alkoxycarbonyl);
- 3) C₂₋₅alkynylR¹⁵ (wherein R¹⁵ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, carbamoyl, C₁₋₄alkylcarbamoyl, N,N-di(C₁₋₄alkyl)carbamoyl, C₁₋₄alkanoyl and C₁₋₄alkoxycarbonyl);
- 4) C_{1.5}alkylX²C_{1.5}alkylX³R¹⁶ (wherein X² and X³ which may be the same or different are each -O-, -S-, -SO-, -SO₂-, -NR¹⁷CO-, -CONR¹⁸-, -SO₂NR¹⁹-, -NR²⁰SO₂- or -NR²¹- (wherein R¹⁷, R¹⁸, R¹⁹, R²⁰ and R²¹ each independently represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) and R¹⁶ represents hydrogen or C_{1.3}alkyl) with the proviso that X¹ cannot be -CH₂- when R⁴ is C_{1.5}alkylX²C_{1.5}alkylX³R¹⁶;
- 5) C_{1.3}alkylX⁴COR²² (wherein X⁴ represents -O- or -NR²³- (wherein R²³ represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) and R²² represents -NR²⁴R²⁵ or -OR²⁶ (wherein R²⁴, R²⁵ and R²⁶ which may be the same or different each represents hydrogen, C_{1.4}alkyl or C_{1.3}alkoxyC_{2.3}alkyl));
- 6) C_{1.3}alkylX⁵R²⁷ (wherein X⁵ represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁸CO-, -CONR²⁹-, -SO₂NR³⁰-, -NR³¹SO₂- or -NR³²- (wherein R²⁸, R²⁹, R³⁰, R³¹ and R³² each independently represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) or X⁵ is carbonyl, and R²⁷ represents cyclopentyl, cyclohexyl or a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which cyclopentyl, cyclohexyl or heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.4}alkyl, C_{1.4}hydroxyalkyl, C_{1.4}alkoxy, carbamoyl, C_{1.4}alkylcarbamoyl, N,N-di(C_{1.4}alkyl)carbamoyl, C_{1.4}alkanoyl and C_{1.4}alkoxycarbonyl or R²⁷ is C_{1.3}alkyl with the proviso that when R²⁷ is C_{1.3}alkyl, X⁵ is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and X¹ is not -CH₂-);

- 7) C₁₋₃alkoxyC₂₋₄alkyl provided that X¹ is -S-, -SO- or -SO₂-;
- 8) C₁₋₃alkoxyC₂₋₄alkyl or C₁₋₄alkyl provided that X¹ is -O-;
- 9) C_{1.3}alkylX⁶C_{1.3}alkylR³³ (wherein X⁶ represents -O-, -S-, -SO-, -SO₂-, -NR³⁴CO-, -CONR³⁵-, -SO₂NR³⁶-, -NR³⁷SO₂- or -NR³⁸- (wherein R³⁴, R³⁵, R³⁶, R³⁷ and R³⁸ each independently represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) and R³³ represents cyclopentyl, cyclohexyl or a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which cyclopentyl, cyclohexyl or heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.4}alkyl, C_{1.4}hydroxyalkyl, C_{1.4}alkoxy, carbamoyl, C_{1.4}alkylcarbamoyl, N,N-di(C_{1.4}alkyl)carbamoyl, C_{1.4}alkanoyl and C_{1.4}alkoxycarbonyl);
- 10) R³⁹ (wherein R³⁹ is a group selected from pyrrolidin-3-yl, piperidin-3-yl and piperidin-4-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C, alkyl, C, hydroxyalkyl, C, alkoxy, carbamoyl, C, alkylcarbamoyl, N,N-di(C1_alkyl)carbamoyl, C1_alkanoyl and C1_alkoxycarbonyl); 11) C₁ salkylR⁴⁰ (wherein R⁴⁰ is piperazin-1-yl which bears at least one substituent selected from C_{1.4}alkanoyl, C_{1.4}alkoxycarbonyl, C_{1.4}hydroxyalkyl and -CONR⁴¹R⁴² (wherein R41 and R42 each independently represents hydrogen or C12alkyl); 12) C_{1.5}alkylR⁴³ (wherein R⁴³ is morpholino which may bear one or two substituents selected from oxo, C, alkyl, C, hydroxyalkyl, carbamoyl, C, alkylcarbamoyl, N,Ndi(C14alkyl)carbamoyl, C14alkanoyl and C14alkoxycarbonyl) with the proviso that when R4 is C_{1.4}alkylR43, X1 is -S-, -SO-, -SO₂-, -SO₂NR9- or -NR10SO₂-; and 13) C_{1.5}alkylR⁴⁴ (wherein R⁴⁴ is morpholino which bears at least one and optionally two substituents selected from oxo, C14alkyl, C14hydroxyalkyl, carbamoyl, C1 alkylcarbamoyl, N.N-di(C1.alkyl)carbamoyl, C1.alkanoyl and C1.alkoxycarbonyl); with the further proviso that when R4 is selected from group 8) R1 and/or R2 is/are nitro or at least one R³ is C_{1,3}alkanoyloxy;] and salts thereof.
 - 2. A quinazoline derivative as claimed in claim 1 wherein R¹ represents hydrogen, hydroxy, cyano, nitro, trifluoromethyl, methyl, ethyl, methoxy or ethoxy.

- 3. A quinazoline derivative as claimed in claim 1 or claim 2 wherein R^2 is hydrogen.
- 4. A quinazoline derivative as claimed in any one of the preceding claims wherein the phenyl group bearing (R³)_m is of the formula II:

(II)

wherein:

Ra represents hydrogen, methyl, fluoro or chloro;

R^b represents hydrogen, methyl, methoxy, bromo, fluoro or chloro;

R^c represents hydrogen or hydroxy;

R^d represents hydrogen, fluoro or chloro.

- 5. A quinazoline derivative as claimed in any one of the preceding claims wherein X^{I} represents -O-, -S-, -NR⁷CO-, -NR¹⁰SO₂- or -NR¹¹- (wherein R⁷, R¹⁰ and R¹¹ each independently represents hydrogen, $C_{1.2}$ alkyl or $C_{1.2}$ alkoxyethyl).
- 6. A quinazoline derivative as claimed in any one of the preceding claims wherein R⁴ is selected from one of the following eleven groups:
- 1) C₁₋₄alkylR¹² (wherein R¹² is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithiolan-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁.

3alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or C₂₋₄alkylR⁴⁵ (wherein R⁴⁵ is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogen₀, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);

- 2) 1-R⁴⁶prop-1-en-3-yl, 1-R⁴⁶but-2-en-4-yl, 1-R⁴⁶but-1-en-3-yl, 1-R⁴⁶pent-2-en-4-yl or 2-R⁴⁶pent-3-en-5-yl (wherein R⁴⁶ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N.N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or 1-R⁴⁷but-2-en-4-yl, 1-R⁴⁷pent-2-en-4-yl or 2-R⁴⁷pent-3-en-5-yl (wherein R⁴⁷ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₁alkoxycarbonyl);
 - 3) 1-R⁴⁸prop-1-yn-3-yl, 1-R⁴⁸but-2-yn-4-yl, 1-R⁴⁸but-1-yn-3-yl, 1-R⁴⁸pent-2-yn-4-yl or 2-R⁴⁸pent-3-yn-5-yl (wherein R⁴⁸ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or 1-R⁴⁹but-2-yn-4-yl, 1-R⁴⁹pent-2-yn-4-yl or 2-R⁴⁹pent-3-yn-5-yl (wherein R⁴⁹ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁.

- ₃hydroxyalkyl, C_{1-3} alkoxy, carbamoyl, C_{1-3} alkylcarbamoyl, $N,N-di(C_{1-3}$ alkyl)carbamoyl, C_{2-3} alkanoyl and C_{1-3} alkoxycarbonyl);
- 4) C₂₋₃alkylX²C₁₋₃alkylX³R¹⁶ (wherein X² and X³ are as defined in claim 1 and R¹⁶ represents hydrogen or C₁₋₃alkyl) with the proviso that X¹ cannot be -CH₂- when R⁴ is C₂₋₃alkylX²C₁₋₃alkylX³R¹⁶;
- 5) C_{2.3}alkylX⁴COR²² (wherein X⁴ is as defined in claim 1 and R²² represents -NR²⁴R²⁵ or -OR²⁶ (wherein R²⁴, R²⁵ and R²⁶ which may be the same or different each represents hydrogen, C_{1.4}alkyl or C_{1.2}alkoxyethyl));
- 6) C₂₋₃alkylX⁵R²⁷ (wherein X⁵ is as defined in claim 1 and R²⁷ represents a group selected from cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl which group is linked to X⁵ through a carbon atom and which group may carry one substituent selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl or R²⁷ is C₁₋₃alkyl with the proviso that when R²⁷ is C₁₋₃alkyl, X⁵ is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and X¹ is not -CH₂-);
- 7) C₁₋₂alkoxyC₂₋₃alkyl provided that X¹ is -S-, -SO- or -SO₂-;
- 8) C₂₋₃alkylX⁶C₂₋₃alkylR³³ (wherein X⁶ is as defined in claim 1 and R³³ represents a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl, and C₁₋₃alkoxycarbonyl);
- 9) C₂₋₃alkylR⁴⁰ (wherein R⁴⁰ is piperazin-1-yl which bears at least one substituent selected from acetyl, C₁₋₂alkoxycarbonyl, C₁₋₂hydroxyalkyl and CONR⁴¹R⁴² (wherein R⁴¹ and R⁴² each independently represents hydrogen or C₁₋₂alkyl);
- 10) $C_{2.3}$ alkyl R^{43} (wherein R^{43} is morpholino which may bear one or two substituents selected from oxo, $C_{1.2}$ alkyl, $C_{1.2}$ hydroxyalkyl, carbamoyl, $C_{1.2}$ alkylcarbamoyl, N,N-di($C_{1.2}$ alkyl)carbamoyl, acetyl and $C_{1.2}$ alkoxycarbonyl) with the proviso that when R^4 is $C_{2.3}$ alkyl R^{43} , X^1 is -S-, -SO-, -SO₂-, -SO₂N R^9 or -N R^{10} SO₂-; and

- 11) C_{2.3}alkylR⁴⁴ (wherein R⁴⁴ is morpholino which bears at least one and optionally two substituents selected from oxo, C_{1.2}alkyl, C_{1.2}hydroxyalkyl, carbamoyl, C_{1.2}alkylcarbamoyl, N.N-di(C_{1.2}alkyl)carbamoyl, acetyl and C_{1.2}alkoxycarbonyl).
- 7. A quinazoline derivative as claimed in claim 6 wherein R⁴ is selected from one of the following nine groups:
- 1) C₁₋₃alkylR¹² (wherein R¹² is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl) or C₂₋₃alkylR⁴⁵ (wherein R⁴⁵ is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxyearbonyl);
- 2) 1-R⁵⁰but-2-en-4-yl (wherein R⁵⁰ is a group selected from imidazolidin-1-yl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithion-2-yl, piperidin-4-yl, pyrrolidin-1-yl, pyrrolidin-3-yl, piperazin-1-yl, morpholino, thiomorpholino and piperidino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl);
- 3) 1-R⁵¹but-2-yn-4-yl (wherein R⁵¹ is a group selected from imidazolidin-1-yl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, piperidin-4-yl, pyrrolidin-1-yl, pyrrolidin-3-yl, piperazin-1-yl, morpholino, thiomorpholino and piperidino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl);
- 4) C_{2.3}alkylX²C_{1.3}alkylX³R¹⁶ (wherein X² and X³ are as defined in claim 1 and R¹⁶ represents hydrogen or C_{1.3}alkyl) with the proviso that X¹ cannot be -CH₂- when R⁴ is C_{2.3}alkylX²C_{1.3}alkylX³R¹⁶;

- 5) C₁₋₂alkoxyC₂₋₃alkyl provided that X¹ is -S-, -SO- or -SO₂-;
- 6) 2-(3,3-dimethylureido)ethyl, 3-(3,3-dimethylureido)propyl, 2-(3-methylureido)ethyl, 3-(3-methylureido)propyl, 2-ureidoethyl, 3-ureidopropyl, 2-(N,N-dimethylcarbamoyloxy)propyl, 2-(N-methylcarbamoyloxy)propyl, 2-(N-methylcarbamoyloxy)propyl, 2-(carbamoyloxy)ethyl, 3-(carbamoyloxy)propyl, 2-(1,3,3-trimethylureido)ethyl, 3-(1,3,3-trimethylureido)propyl, 2-(isopropoxycarbonylamino)ethyl, 3-(isopropoxycarbonylamino)propyl, 2-(isobutoxycarbonylamino)ethyl, 3-(isobutoxycarbonylamino)propyl, 2-(t-butoxycarbonylamino)ethyl or 3-(t-butoxycarbonylamino)propyl;
- 7) $C_{2.3}$ alkyl X^5R^{27} (wherein R^{27} is $C_{1.2}$ alkyl and X^5 is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and with the proviso that X^1 is not -CH₂-);
- 8) C₂₋₃alkylX⁶C₂₋₃alkylR³³ (wherein X⁶ is as defined in claim 1 and R³³ represents a group selected from morpholino, 2-oxopyrrolidin-1-yl, pyrrolidin-1-yl, piperidino, piperazin-1-yl and 4-methylpiperazin-1-yl); and
- 9) C₂₋₃alkylR⁴³ (wherein R⁴³ is morpholino which may bear one or two substituents selected from oxo, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl) with the proviso that when R⁴ is C₂₋₃alkylR⁴³, X¹ is -S-, -SO-, -SO₂-, -SO₂NR⁹- or -NR¹⁰SO₂-.
- 8. A compound as claimed in claim 1 of the formula Ia:

$$R^{1a}$$
 R^{1a}
 R^{1a}
 R^{4a}
 R^{1a}
 R^{4a}

(Ia)

[wherein:

R^{1a} is hydrogen or methoxy;

R^{2a} is hydrogen;

the phenyl group bearing $(R^{3a})_{ma}$ is the 4-chloro-2-fluorophenyl group or the 4-bromo-2-fluorophenyl group;

 X^{1a} is -O-, -S-, -NR^{5a}CO- or -NR^{6a}SO₂- (wherein R^{5a} and R^{6a} each independently represents hydrogen or C₁₋₂alkyl);

R^{4a} is selected from one of the following eleven groups:

1) C₁₋₄alkylR^{7a} (wherein R^{7a} is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or C₂₋₄alkylR^{8a} (wherein R^{8a} is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);

2) 1-R^{9a}prop-1-en-3-yl, 1-R^{9a}but-2-en-4-yl, 1-R^{9a}but-1-en-3-yl, 1-R^{9a}pent-2-en-4-yl or 2-R^{9a}pent-3-en-5-yl (wherein R^{9a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.3}alkyl, C_{1.3}hydroxyalkyl, C_{1.3}alkoxy, carbamoyl, C_{1.3}alkylcarbamoyl, N.N-di(C_{1.3}alkyl)carbamoyl, C_{2.3}alkanoyl and C_{1.3}alkoxycarbonyl) or 1-R^{10a}but-2-en-4-yl, 1-R^{10a}pent-2-en-4-yl or 2-R^{10a}pent-3-en-5-yl (wherein R^{10a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1.3}alkyl, C_{1.3}hydroxyalkyl, C_{1.3}alkoxy, carbamoyl, C_{1.3}alkylcarbamoyl, N.N-di(C_{1.3}alkyl)carbamoyl, C_{2.3}alkanoyl and C_{1.3}alkoxycarbonyl);

- 3) 1-R^{11a}prop-1-yn-3-yl, 1-R^{11a}but-2-yn-4-yl, 1-R^{11a}but-1-yn-3-yl, 1-R^{11a}pent-2-yn-4-yl or 2-R^{11a}pent-3-yn-5-yl (wherein R^{11a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or 1-R^{12a}but-2-yn-4-yl, 1-R^{12a}pent-2-yn-4-yl or 2-R^{12a}pent-3-yn-5-yl (wherein R^{12a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl) carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);
- 4) C_{2.3}alkylX^{2a}C_{1.3}alkylX^{3a}R^{13a} (wherein X^{2a} and X^{3a} which may be the same or different each represents -O-, -S-, -SO-, -SO₂-, -NR^{14a}CO-, or -NR^{15a}- (wherein R^{14a} and R^{15a} each independently represents hydrogen, C_{1.2}alkyl or C_{1.2}alkoxyethyl) and R^{13a} represents hydrogen or C_{1.3}alkyl);
- 5) C_{2.3}alkylX^{4a}COR^{16a} (wherein X^{4a} represents -O- or -NR^{17a}- (wherein R^{17a} represents hydrogen, C_{1.3}alkyl or C_{1.2}alkoxyethyl) and R^{16a} represents -NR^{18a}R^{19a} or -OR^{20a} (wherein R^{18a}, R^{19a} and R^{20a} which may be the same or different each represents hydrogen, C_{1.4}alkyl or C_{1.2}alkoxyethyl));
- 6) C₂₋₃alkylX^{5a}R^{21a} (wherein X^{5a} represents carbonyl, -O-, -S-, -SO-, -SO₂-, -NR^{22a}CO-, -NR^{23a}SO₂- or -NR^{24a}- (wherein R^{22a}, R^{23a} and R^{24a} each independently represents hydrogen, C₁₋₂alkyl or C₁₋₂alkoxyethyl) and R^{21a} represents a group selected from cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl which group is linked to X^{5a} through a carbon atom and which group may carry one substituent selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl or R^{21a} is C₁₋₃alkyl with the proviso that when R^{21a} is C₁₋₃alkyl, X^{5a} is -S-, -SO-, -SO₂- or -NR^{23a}SO₂-);

- 7) C_{1.2}alkoxyC_{2.3}alkyl provided that X^{1a} is -S-;
- 8) C2.3alkylX6aC2.3alkylR25a (wherein X6a represents -O-, -S-, -SO-, -SO₂-, -NR26aCO-, -NR^{27a}SO₂- or -NR^{28a}- (wherein R^{26a}, R^{27a} and R^{28a} each independently represents hydrogen, C₁₋₂alkyl or C₁₋₂alkoxyethyl) and R^{25a} represents a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁ 3alkylcarbamoyl, N,N-di(C1-3alkyl)carbamoyl, C2-3alkanoyl, and C1-3alkoxycarbonyl); 9) C₂₋₃alkylR^{29a} (wherein R^{29a} is piperazin-1-yl which bears at least one substituent selected from acetyl, C_{1.2}alkoxycarbonyl, C_{1.2}hydroxyalkyl and CONR^{30a}R^{31a} (wherein R^{30a} and R^{31a} each independently represents hydrogen or C_{1,2}alkyl); 10) C_{2.3}alkylR^{32a} (wherein R^{32a} is morpholino which may bear one or two substituents selected from oxo, C_{1.2}alkyl, C_{1.2}hydroxyalkyl, carbamoyl, C_{1.2}alkylcarbamoyl, N,Ndi(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl) with the proviso that when R⁴ is C₂₋₃alkylR^{32a}, X^{1a} is -S- or -NR^{6a}SO₂- (wherein R^{6a} is as defined herein); and 11) C2. alkylR33a (wherein R33a is morpholino which bears at least one and optionally two substituents selected from oxo, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, carbamoyl, C₁ ₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl); and salts thereof.
 - 9. A quinazoline derivative as claimed in claim 1 selected from:4-(4-chloro-2-fluoroanilino)-7-(1,3-dioxolan-2-ylmethoxy)-6-methoxyquinazoline,
 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-morpholinobut-2-yn-1-yloxy)quinazoline,
 - (E)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-morpholinobut-2-en-1-yloxy)quinazoline,
 - 4-(4-chloro-2-fluoroanilino)-7-(3-(2,6-dimethylmorpholino)propoxy)-6-methoxyquinazoline,
 - 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-([N-methyl-N-methylsulphonyl]amino)propoxy)quinazoline,

- 7-(2-[N-tert-butoxycarbonylamino]ethoxy)-4-(4-chloro-2-fluoroanilino)-6-methoxyquinazoline,
- 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(3-($[\underline{N}$ -methyl- \underline{N} -methylsulphonyl]amino)propoxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-oxoimidazolidin-1-yl)ethoxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(3-oxomorpholino)ethoxy)quinazoline,
- 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(3-oxomorpholino)ethoxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-thiomorpholinoethoxy)quinazoline,
- (S)-4-(4-bromo-2-fluoroanilino)-7-(3-(2-carbamoylpyrrolidin-1-yl)propoxy)-6-methoxyquinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(2-oxopyrrolidin-1-
- yl)propoxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-oxopyrrolidin-1-
- yl)ethoxy)quinazoline,
- (S)-7-(3-(2-carbamoylpyrrolidin-1-yl)propoxy)-4-(4-chloro-2-fluoroanilino)-6-

methoxyquinazoline,

- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-
- morpholinoethoxy)ethoxy)quinazoline and
- 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(3-(2-oxopyrrolidin-1-
- yl)propoxy)quinazoline
- and salts thereof.
- 10. A quinazoline derivative as claimed in claim 1 selected from:-
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-2-(2-methoxyethoxy)ethoxyquinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-
- yl)methoxyquinazoline,
- 4-(4-bromo-2-fluoroanilino)-7-(3-(1,1-dioxothiomorpholino)propoxy)-6-methoxyquinazoline,
- 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(2-methoxyethoxy)ethoxy)quinazoline,

- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-pyrrolidin-1-ylethoxy)quinazoline,
 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-[4-methylpiperazin-1-
- 4-(4-cnioro-2-fluoroanilino)-6-methoxy-/-(2-(2-[4-methylpiperazin-1-yl]ethoxy)ethoxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-morpholinopropylthio)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-([N-methyl-N-
- methoxyacetyl]amino)ethoxy)quinazoline and
- 4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(2-oxopyrrolidin-1-
- yl)ethoxy)quinazoline

and salts thereof.

- 11. A quinazoline derivative as claimed in claim 1 selected from:-
- (E)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-(pyrrolidin-1-yl)but-2-en-1-yloxy)quinazoline,
- 4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(methylsulphonyl)propoxy)quinazoline,
- (S)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-
- yl)methoxyquinazoline and
- (R)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-
- yl)methoxyquinazoline

and salts thereof.

- 12. A quinazoline derivative as claimed in claim 1 selected from:4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(methylsulphonyl)propoxy)quinazoline and salts thereof.
- 13. A quinazoline derivative as claimed in any one of the preceding claims in the form of a pharmaceutically acceptable salt.
- 14. A process for the preparation of a quinazoline derivative of formula I or salt thereof (as defined in claim 1) which comprises:-

(a) the reaction of a compound of the formula III:

$$\begin{array}{c|c}
R^1 & & L^1 \\
R^4 - X^1 & & N
\end{array}$$

(III)

(wherein R^1 , R^2 , X^1 and R^4 are as defined in claim 1 and L^1 is a displaceable moiety), with a compound of the formula IV:

$$(R^3)_m$$
 NH_2

(IV)

(wherein R³ and m are as defined in claim 1) whereby to obtain compounds of the formula I and salts thereof;

(b) for the preparation of compounds of formula I and salts thereof in which the group of formula IIa:

(IIa)

(wherein R³ and m are as defined in claim 1) represents a phenyl group carrying one or more hydroxy groups, the deprotection of a compound of formula V:

$$R^{2}$$
 NH
 $(OP)_{pl}$
 N

(V)

(wherein X¹, m, R¹, R², R³ and R⁴ are as defined in claim 1, P represents a phenolic hydroxy protecting group and p1 is an integer from 1 to 5 equal to the number of protected hydroxy groups and such that m-p1 is equal to the number of R³ substituents which are not protected hydroxy);

(c) for the preparation of those compounds of formula I and salts thereof wherein the substituent X¹ is -O-, -S-, -NR¹¹-, -SO₂-, -CONR⁸- or -SO₂NR⁹-, the reaction of a compound of the formula VI:

$$R^2$$
 NH
 N
 N
 N
 N

(VI)

(wherein m, X^1 , R^1 , R^2 and R^3 are as defined in claim 1) with a compound of formula VII:

R4-L1

(VII)

(wherein R4 is as defined in claim 1 and L1 is as defined herein);

(d) the reaction of a compound of the formula VIII:

$$\begin{array}{c|c}
R^2 & & \\
NH & & \\
N & & \\
L^1 & & N
\end{array}$$

(VIII)

with a compound of the formula IX:

$$R^4-X^1-H (IX)$$

(wherein R¹, R², R³, R⁴, m and X¹ are as defined in claim 1 and L¹ is as defined herein);

- (e) for the preparation of compounds of formula I and salts thereof wherein R⁴ is C_{1.5}alkylR⁵³, [wherein R⁵³ is selected from one of the following three groups:
- 1) X⁷R²⁷ (wherein X⁷ represents -O-, -S-, -SO₂-, -NR⁵⁴CO-, -NR⁵⁵SO₂- or -NR⁵⁶- (wherein R⁵⁴, R⁵⁵ and R⁵⁶ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl) and R²⁷ is as defined in claim 1);
- 2) X⁸C_{1.3}alkylX³R¹⁶ (wherein X⁸ represents -O-, -S-, -SO₂-, -NR⁵⁷CO-, -NR⁵⁸SO₂- or -NR⁵⁹- (wherein R⁵⁷, R⁵⁸ and R⁵⁹ each independently represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) and X³ and R¹⁶ are as defined in claim 1); and
- 3) $X^9C_{1.5}$ alkyl R^{33} (wherein X^9 represents -O-, -S-, -SO₂-, -NR⁶⁰CO-, -NR⁶¹SO₂- or -NR⁶²- (wherein R⁶⁰, R⁶¹ and R⁶² each independently represents hydrogen, C_{1.3}alkyl or C_{1.3}alkoxyC_{2.3}alkyl) and R³³ is as defined in claim 1);], the reaction of a compound of the formula X:

(X)

(wherein X^1 , R^1 , R^2 , R^3 and m are as defined in claim 1, L^1 is as defined herein and R^{63} is $C_{1.5}$ alkyl) with a compound of the formula XI:

$$R^{53}$$
-H (XI)

(wherein R⁵³ is as defined herein) to give a compound of the formula I; the preparation of compounds of the formula I wherein R⁴ is C₂₋₅alkylR⁴⁵, (wherein R⁴⁵ is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino, which group may bear one or two substituents selected from oxo, hydroxy, halogeno. C₁.

4alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, carbamoyl, C₁₋₄alkylcarbamoyl, N,N-di(C₁.

4alkyl)carbamoyl, C₁₋₄alkanoyl and C₁₋₄alkoxycarbonyl), the reaction of a compound of formula X (wherein R⁶³ is C₂₋₅alkyl) with a compound of the formula XIa:

 R^{45} -H (XIa)

(wherein R45 is as defined herein) to give a compound of the formula I;

- (f) for the preparation of those compounds of the formula I and salts thereof wherein the substituent R¹ is represented by -NR⁵R⁶, where one or both of R⁵ and R⁶ are C_{1.3}alkyl, the reaction of compounds of formula I wherein the substituent R¹ is an amino group with an alkylating agent;
- (g) for the preparation of compounds of formula I and salts thereof wherein one or more of the substituents R^1 , R^2 or R^3 is an amino group, the reduction of a

corresponding compound of formula I wherein the substituent(s) at the corresponding position(s) of the quinazoline and/or aniline ring is/are a nitro group(s); and when a pharmaceutically acceptable salt of a quinazoline derivative of formula I is required, reaction of the compound obtained with an acid or base whereby to obtain the desired pharmaceutically acceptable salt.

- 15. A pharmaceutical composition which comprises as active ingredient a compound of formula I as defined in claim 1 or a pharmaceutically acceptable salt thereof, in association with a pharmaceutically acceptable excipient or carrier.
- 16. A method for producing an antiangiogenic and/or vascular permeability reducing effect in a warm-blooded animal in need of such treatment which comprises administering to said animal an effective amount of a compound of formula I or a pharmaceutically acceptable salt thereof as defined in claim 1.